

ENVIRONMENTAL SCIENCE
THE HERPETOFAUNA SURROUNDING ECOLODGE SAN LUIS AND
BIOLOGICAL STATION: AN INVENTORY AND ANALYSIS

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I estimated the herpetofauna biodiversity of different microhabitats in a highland ecosystem at Ecolodge San Luis and Biological Station, near the town of San Luis at 1150m in elevation, northern Costa Rica. I extensively searched the area, and used nine line transects, each 150m in length. Five of these transects were in riparian habitats, two were in transitional forest habitats, and one transect was used for both pasture and dry streambed habitats. Visual encounter surveys were used, indicating species name, sex, activity, location and time found for each specimen. I found 45 species from 16 families and 3 orders. Of these species, nine were not previously published in the valley and three extended their published elevation/geographic distributions. Also worth noting were eight species from the genus *Norops*, which is a very surprising diversity for an area of this elevation. Transects were grouped using the Morisita Index for similarity into three distinct clusters. The presence of reptiles/amphibians was compared to precipitation levels, revealing a decrease of animals found with increased precipitation levels. *Norops oxylophus* was the most abundant species encountered and its behavioral tendencies regarding perching and group sleeping were noted and analyzed, showing significance in both perching tendencies and nocturnal group sleeping trends. Future research was planned for the wet season, to add to the species list and gather more data on the species encountered, as it is pertinent to know the differences in this area between the wet season and dry season species activity. Upon completion of the wet and dry season data, the area will be compared to other similar habitats throughout Costa Rica and perhaps other areas in Central and South America.